



## DESIGN CHALLENGE

# Design a Trampoline

Design a trampoline that will lift an object (golf ball) that weighs three ounces to a height of two feet.

## What You'll Need

- 1 colander
- 20 rubber bands
- 20 toothpicks
- 6 binder clips
- 1 piece of cloth the size of the opening of the colander
- 1 golf ball

## Quote



Explain the quote listed in your own words, and then describe how it applies to the design challenge.

"I've always had that knack for staying pretty even keel and the more the situation gets tense the more I see things clearly and I think that's just a knack that I've always had."

– Tiger Woods



### Reflection Questions:

Explain how your trampoline lifts the object.

What changes would you need to make if your object weighed five ounces?



### Redesign Challenge:

Make changes to your trampoline design so that the object will lift to a height of four feet.



### Overall Design Reflection Questions:

- What were some interesting discoveries you made while working on the Design Challenges?
  - About the problems? About yourself?
- What were some of the difficulties of the Design Challenges?
  - What made them difficult?
- What were some learning moments?
  - What made them so?
- How can you use what you have learned in the future?

For more on design and flight, check out – To Our Solar System and Back Digital Exploration on TGR EDU: Explore [tgreduexplore.org/curriculum](https://tgreduexplore.org/curriculum)